



9423.ST25.txt  
SEQUENCE LISTING

<110> The Procter & Gamble Company

<120> Composition for Comprising a Mouse HRT Protein-Human Interacting Partner Protein Complex (Revised)

<130> 9423

<140> 10/712,629

<141> 2003-11-13

<160> 20

<170> PatentIn version 3.3

<210> 1

<211> 660

<212> DNA

<213> Homo Sapiens Keratin 5

<400> 1  
gccctcctgg aggtatccaa gaggtcactg tcaaccagag tctcctgact cccctcaacc 60  
tgcaaatcga cccagcatc cagagggtga ggaccgagga gcgcgagcag atcaagaccc 120  
tcaacaataa gtttgctcc ttcctgcaca aggtgcggtt cctggagcag cagaacaagg 180  
ttctggacac caagtggacc ctgctgcagg agcagggcac caagaccgtg aggcagaacc 240  
tggagccgtt gttcgagcag tacatcaaca acctcaggag gcagctggac agcatcgtgg 300  
gggaacgggg ccgcctggac tcagagctaa gaaacatgca ggacctggtg gaagacttca 360  
agaacaagta tgaggatgaa atcaacaagc gtaccactgc tgagaatgag tttgtgatgc 420  
tgaagaagga tgtagatgct gcctacatga acaaggtgga gctggaggcc aaggttgatg 480  
cactgatgga tgagattaac ttcctgaaga tggtctttga tgcggagctg tcccagatgc 540  
agacgcatgt ctctgacacc tcagtgggtc tctccatgga caacaaccgc aacctggacc 600  
tggatagcat catcgctgag gtcaaggccc agtatgagga gattgccaac cgcagccgga 660

<210> 2

<211> 746

<212> DNA

<213> Homo sapiens Ubiquitous Receptor

<400> 2  
aagattcga aacagcagca gcaggagtca cagtcacagt cgcagtcacc tgtggggccg 60  
cagggcagca gcagctcagc ctctgggcct ggggcttccc ctggtggatc tgaggcaggc 120  
agccagggct ccggggaagg cgagggtgtc cagctaacag cggctcaaga actaatgatc 180  
cagcagttgg tggcggccca actgcagtgc aacaaacgct ctttctccga ccagcccaaa 240  
gtcacgccct ggcccctggg cgcagacccc cagtcccag atgcccgcga gcaacgcttt 300  
gcccacttca cggagctggc catcatctca gtccaggaga tcgtggactt cgctaagcaa 360  
gtgcctggtt tcctgcagct gggccgggag gaccagatcg cctcctgaa ggcattcact 420  
atcgagatca tgctgctaga gacagccagg cgctacaacc acgagacaga gtgtatcacc 480  
ttcttgagga cttcacctac agcaaggacg acttccaccg tgcaggcctg caggtggagt 540

## 9423.ST25.txt

```

tcatcaaccc catcttcgag ttctcgcggg ccatgcggcg gctgggcctg gacgacgctg   600
agtacgccct gctcatcgcc atcaacatct tctcggccga ccggcccaac gtgcaggagc   660
cgggccgcgt ggaggcggtg cagcagccct acgtggaggc gctgctgtcc tacacgcgca   720
tcaagaggcc gcaggaccag ctgcgc                                     746

```

```

<210> 3
<211> 705
<212> DNA
<213> Homo Sapiens Protein Inhibitor of Activated STAT-1

```

```

<400> 3
gcggaactaa agcaaattgt tatgagcctt agagtttctg aactccaagt actgttgggc   60
tacgccggga gaaacaagca cggacgcaaa cacgaacttc tcacaaaagc cctgcatttg   120
ctaaaggctg gctgtagtcc tgctgtgcaa atgaaaatta aggaactcta taggcggcgg   180
ttcccacaga aaatcatgac gcctgcagac ttgtccatcc ccaacgtaca ttcaagtcct   240
atgccagcaa ctttgtctcc atctaccatt ccacaactca cttacgatgg tcaccctgca   300
tcatcgccat tactccctgt ttctcttctg ggacctaaac atgaactgga actcccacat   360
cttacatcag ctcttcaccc agtccatccg gatataaaac ttcaaaaatt accattttat   420
gatttactgg atgaactgat aaaacccacc agtctagcat cagacaacag tcagcgcttt   480
cgagaaacct gttttgcatt tgccttgaca ccacaacaag tgcagcaaat cagtagttcc   540
atggatatatt ctgggaccaa atgtgacttc acagtacagg tccagttaag gttttgttta   600
tcagaaacca gttgtccaca agaagatcac ttcccaccca atctttgtgt gaaagtgaat   660
acaaaacctt gcagccttcc aggttacctt ccacctacaa aaaat                                     705

```

```

<210> 4
<211> 792
<212> DNA
<213> Homo Sapiens Similar to Stromal Antigen 2

```

```

<400> 4
gagagtgttc tgattgaaat aatgctttgt accattagac aagcggctga atgtcatcct   60
cccgtgggaa gagggacagg aaaaagggtg cttacagcaa aggagaagaa gacacagttg   120
gatgatagga caaaaatcac tgagcttttt gccgtggccc ttcctcagtt attagcaaaa   180
tactctgtag atgcagaaaa ggtgactaac ttgttgagct tgcctcagta ctttgatttg   240
gaaatatata ccactggacg attagaaaag cttttggatg ctttattgag acagatccgg   300
aatattgtag agaagcacac agatacagat gttttggaag catgttctaa aacttaccat   360
gcactctgta atgaagagtt cacaatcttc aacagagtag atatttcaag aagtcaactg   420
atagatgaat tggcagataa atttaaccgg cttcttgaag attttctgca agagggtgaa   480
gaacctgatg aagatgatgc atatcaggta ttgtcaacat tgaagaggat cactgctttt   540
cataatgccc atgacctttc aaagtgggat ttatttgctt gtaattacaa actcttgaaa   600
actggaatcg aaaatggaga catgcctgag cagattgtta ttcacgcact gcagtgtact   660

```

9423.ST25.txt

cactatgtaa	tcctttggca	acttgctaag	ataactgaaa	gcagctctac	aaaggaggac	720
ttgctgcggt	ttaaagaaaca	aatgagagta	ttttgtcaga	tatgtcaaca	ttacctgacc	780
aacgtgaata	ct					792

<210> 5  
 <211> 747  
 <212> DNA  
 <213> Homo Sapiens Nucleoporin 160 kda

<400> 5						
actgaagcag	gtgatgactg	gaaaagtcag	gctactctaa	ggacatgtat	tttcaaacat	60
catttggtgatt	tgggtcacaa	tagccaagca	tatgaagcct	taacccaaat	tcctgattcc	120
agcaggcaat	tagattgttt	acggcagttg	gtggtagttc	tttgtgaacg	ctcacagcta	180
caggatcttg	tagagtttcc	ctatgtgaat	ctgcataatg	aggttgtggg	aataattgag	240
tcacgtgcta	gagctgtgga	ccttatgact	cacaattact	atgaacttct	gtatgccttt	300
cacatctatc	gccacaatta	ccgcaaggct	ggcacagtga	tgtttgagta	tggaatgcgg	360
cttggcagag	aagttcgaac	tctccgggga	cttgagaaac	aaggcaactg	ttatctggct	420
gctctcaatt	gtttacgact	tattcgtcca	gaatatgcgt	ggattgtgca	gccagtgtct	480
ggtgcagtgt	atgatcgccc	tggagcatcc	cctaagagga	atcatgatgg	agaatgcaca	540
gctgccccca	caaatcgaca	aattgaaatc	ctggaactgg	aagatctgga	gaaagagtgt	600
tccttggtctc	gcatccgcct	cactttggct	cagcatgatc	catcagcggg	tgcagttgct	660
ggaagttcat	cagcagagga	aatggtcact	ctcttggttc	aggcgggcct	ctttgacact	720
gccatatcac	tctgtcagac	ttttaag				747

<210> 6  
 <211> 683  
 <212> DNA  
 <213> Homo Sapiens Retinoic Acid Receptor Gamma-1

<400> 6						
cctgaccag	tatgtagaag	ccagtctctg	caggcggcca	gcgggacttt	tggaggccca	60
gtgggcaggc	caggcagggc	gggtacggag	cctcccaggc	tggggcagtg	ggcatgggca	120
ggggctgtgg	ctgaagacct	cgcccggcca	ctgcagacct	caggggactc	tcacaccgca	180
gctgccatgg	ccaccaataa	ggagcgactc	tttgcggtg	gtgccctggg	gcctggatct	240
ggctaccag	gggcagggtt	ccccttcgcc	ttcccagggg	cactcagggg	gtctccgcct	300
ttcgagatgc	tgagccctag	cttccggggc	ctgggccagc	ctgacctccc	caaggagatg	360
gcctctctgt	cgggtggagac	acagagcacc	agctcagagg	agatgggtgcc	cagctcggcc	420
tcgccccctc	cgctcctcg	ggctctacaag	ccatgcttcg	tgtgcaatga	caagtcctct	480
ggctaccact	atggggctcag	ctcttgtaga	ggctgcaagg	gcttctttcg	ccgaagcatc	540
cagaagaaca	tgggtgtacac	gtgtcaccgc	gacaaaaact	gtatcatcaa	caaggtgacc	600
aggaatcgct	gccagtactg	ccggctacag	aagtgccttcg	aagtgggcat	gtccaaggaa	660

gctgtgcgaa atgaccggaa caa

683

<210> 7  
 <211> 744  
 <212> DNA  
 <213> Homo Sapiens Thyroid Hormone Receptor Alpha

<400> 7  
 gtggagtgtg ggtcagaccc agaggagaac agtgccaggt caccagatgg aaagcgaaaa 60  
 agaaagaacg gccaatgttc cctgaaaacc agcatgtcag ggtatatccc tagttacctg 120  
 gacaaagacg agcagtgtgt cgtgtgtggg gacaaggcaa ctggttatca ctaccgctgt 180  
 atcacttgtg agggctgcaa gggcttcttt cgccgcacaa tccagaagaa cctccatccc 240  
 acctattcct gcaaatatga cagctgctgt gtcattgaca agatcacccg caatcagtgc 300  
 cagctgtgcc gcttcaagaa gtgcacgcc gtgggcatgg ccatggactt ggttctagat 360  
 gactcgaagc ggggtggcaa gcgtaagctg attgagcaga accgggagcg gcggcggaag 420  
 gaggagatga tccgatcact gcagcagcga ccagagccca ctctgaaga gtgggatctg 480  
 atccacattg ccacagaggc ccatcgcagc accaatgccc agggcagcca ttggaaacag 540  
 aggcggaaat tcctgcccga tgacattggc cagtcacca ttgtctccat gccggacgga 600  
 gacaagggtg acctggaagc cttcagcgag tttaaccaaga tcatcaccgc ggccatcacc 660  
 cgtgtggtgg actttgcaa aaaactgccc atgttctccg agctgccttg cgaagaccag 720  
 atcatcctcc tgaaggggtg ctgc 744

<210> 8  
 <211> 719  
 <212> DNA  
 <213> Homo sapiens Annexin A1

<400> 8  
 gcacagcgtc aacagatcaa agcagcatat ctccaggaaa caggaaagcc cctggatgaa 60  
 aactgaaga aagcccttac aggtcacctt gaggagggtt ttttagctct gctaaaaact 120  
 ccagcgcaat ttgatgctga tgaacttcgt gctgccatga agggccttgg aactgatgaa 180  
 gatactctaa ttgagatttt ggcatacaga actaacaag aaatcagaga cattaacagg 240  
 gtctacagag aggaactgaa gagagatctg gccaaagaca taacctcaga cacatctgga 300  
 gattttcggg acgctttgct ttctcttgct aagggtgacc gatctgagga ctttggtgtg 360  
 aatgaagact tggctgattc agatgccagg gccttgatg aagcaggaga aaggagaaag 420  
 gggacagacg taaacgtgtt caataccatc cttaccacca gaagctatcc acaacttcgc 480  
 agagtgtttc agaaatacac caagtacagt aagcatgaca tgaacaaagt tctggacctg 540  
 gagttgaaag gtgacattga gaaatgcctc acagctatcg tgaagtgcgc cacaagcaaa 600  
 ccagctttct ttgcagagaa gcttcatcaa gccatgaaag gtgttggaac tcgccataag 660  
 gcattgatca ggattatggt ttcccgttct gaaattgaca tgaatgatat caaagcatt 719

## 9423.ST25.txt

<210> 9  
 <211> 323  
 <212> DNA  
 <213> Homo sapiens HIC Protein Isoform P32 and Isoform 40  
 <400> 9  
 aagccctcgc tcccggggccc gtggggccgc agcgcgtggc cgaggcgggc ggcggccagc 60  
 tgggctccac agcccagggg aaatgtgata aagacaatac tgagaaagat ataactcaag 120  
 ctaccaatag ccacttcaca catggagaga tgcaagacca gtccatttgg ggaaatcctt 180  
 cggatggtga actcattaga acccaacctc agcgtttgcc tcagcttcag acttcagcac 240  
 aggtgccaaag tggtagaggaa ataggcaaga taaagaacgg ccacacaggt ctgagcaatg 300  
 gaaatggaat tcaccacggg gcc 323

<210> 10  
 <211> 610  
 <212> DNA  
 <213> Homo Sapiens Insulin-like Growth Factor Binding Domain Protein 6  
 <400> 10  
 ccaggaggcg ccttggcgcg gtgcccaggc tgcgggcaag ggggtgcaggc gggttgtcca 60  
 gggggctgcg tggaggagga ggatgggggg tcgccagccg agggctgcgc ggaagctgag 120  
 ggctgtctca ggagggaggg gcaggagtgc ggggtctaca cccctaactg cgccccagga 180  
 ctgcagtgcc atccgccc aa ggacgacgag gcgcctttgc gggcgctgct gctcggccga 240  
 ggccgctgcc ttccggcccc cgcgctgct gttgcagagg agaatcctaa ggagagtaaa 300  
 cccaagcag gcaactgccc ccacaggat gtgaaccgca gagaccaaca gaggaatcca 360  
 ggcacctcta ccacgccctc ccagcccaat tctgcgggtg tccaagacac tgagatgggc 420  
 ccatgccgta gacatctgga ctcaagtctg cagcaactcc agactgaggt ctaccgaggg 480  
 gctcaaacac tctacgtgcc caattgtgac catcgaggct tctaccgaa gcggcagtg 540  
 cgctcctccc aggggcagcg ccgagggtccc tgctggtgtg tggatcggat gggcaagtcc 600  
 ctgccagggg 610

<210> 11  
 <211> 718  
 <212> DNA  
 <213> Homo sapiens Inner Membrane Protein, Mitochondrial  
 <400> 11  
 aaacccacac ctgcactttc agaagaagca tcctcatctt ctataaggga gcgaccacct 60  
 gaagaagttg cagctcgctt tgcacaacag gaaaaacaag aacaagttaa aattgagtct 120  
 ctagccaaga gcttagaaga tgctctgagg caaactgcaa gtgtcactct gcaggctatt 180  
 gcagctcaga atgctgcggt ccaggctgtc aatgcacact ccaacatatt gaaagccgcc 240  
 atggacaatt ctgagattgc aggcgagaag aaatctgctc agtggcgcac agtggagggt 300  
 gcattgaagg aacgcagaaa ggcagtagat gaagctgccg atgcccttct caaagccaaa 360  
 gaagagttag agaagatgaa aagtgtgatt gaaaatgcaa agaaaaaaga gggtgtctggg 420

9423.ST25.txt

```

gccaagcctc atataactgc tgcagagggg aaacttcaca acatgatagt tgatctggat 480
aatgtgggtca aaaaggtcca agcagctcag tctgaggcta aggttgatc tcagtatcat 540
gagctgggtgg tccaagctcg ggatgacttt aaacgagagc tggacagtat tactccagaa 600
gtccttcctg ggtggaaagg aatgagtgtt tcagacttag ctgacaagct ctctactgat 660
gatctgaact ccctcattgc tcatgcacat cgtcgtattg atcagctgaa cagagagc 718

```

```

<210> 12
<211> 720
<212> DNA
<213> Homo Sapiens Endoplasmic reticulum thioredoxin superfamily member

```

```

<400> 12
ggaccgtctg ctgggactcc ggccctgcgt ccgctcagcc ccgtggcccc gcgcacctac 60
tgccatggag acgcggcctc gtctcggggc cacctgtttg ctgggcttca gtttcctgct 120
cctcgatcat tcttctgatg gacataatgg gcttggaaag ggttttggag atcatattca 180
ttggaggaca ctggaagatg ggaagaaaga agcagctgcc agtggactgc ccctgatggg 240
gattattcat aaatcctggg gtggagcttg caaagctcta aagcccaaat ttgcagaatc 300
tacggaaatt tcagaactct ccataatgt tggtatggta aatcttgagg atgaagagga 360
acccaaagat gaagatttca gccctgacgg ggggttatatt ccacgaatcc tttttctgga 420
tcccagtggtc aaggtgcatc ctgaaatcat caatgagaat ggaaaccca gctacaagta 480
tttttatgtc agtgccgagc aagttgttca ggggatgaag gaagctcagg aaaggctgac 540
gggtgatgcc ttcagaaaga aacatcttga agatgaattg taacatgaat gtgccccctc 600
tttcatcaga gttagtgttc tggaaggaaa gcagcaggga agggaatatt gaggaatcat 660
ctagaacaat taagccgacc aggaaacctc attcctacct acactggaag gagcgctctc 720

```

```

<210> 13
<211> 779
<212> DNA
<213> Homo Sapiens Protein Inhibitor of Activated STAT-3

```

```

<400> 13
cctgtaggct cccctgggtc tctagctccc attcccccaa cgctgttggc ccctggcacc 60
ctgctgggcc ccaagcgtga ggtggacatg cccccccctc tgccccagcc tgtgcaccct 120
gatgtcacca tgaaccatt gcccttctat gaagtctatg gggagctcat ccggcccacc 180
acccttgcat ccacttctag ccagcgggtt gaggaagcgc actttacctt tgccctcaca 240
ccccagcaag tgcagcagat tcttacatcc agagagggtc tgccaggagc caaatgtgat 300
tataccatac aggtgcagct aaggttctgt ctctgtgaga ccagctgccc ccaggaagat 360
tattttcccc ccaacctctt tgtcaaggtc aatgggaaac tgtgccccct gccgggttac 420
cttcccccaa ccaagaatgg ggccgagccc aagaggcca gccgccccat caacatcaca 480
cccctggctc gactctcagc cactgttccc aacaccattg tggtaattg gtcattctgag 540
ttcggacgga attactcctt gtctgtgtac ctggtgaggc agttgactgc aggaaccctt 600

```

## 9423.ST25.txt

ctacaaaaac tcagagcaaa gggatatccgg aacccagacc actcgcgggc actgatcaag 660  
gagaaattga ctgctgaccc tgacagttag gtggccacta caagtctccg ggtgtcactc 720  
atgtgccccg tagggaagat ggcctgact gtcccttgtc gtgccctcac ctgcgccc 779

<210> 14  
<211> 738  
<212> DNA  
<213> Homo Sapiens DEAD box polypeptide 3

<400> 14  
ggcgaggctt tgagggccat gaaggaaaat ggaaggtatg ggcgccgcaa acaataccca 60  
atctccttgg tattagcacc aacgagagag ttggcagtag agatctacga ggaagccaga 120  
aaattttcat accgatctag agttcgtcct tgcgtggttt atgggtggtgc cgatattggt 180  
cagcagattc gagacttga acgtggatgc catttgtag tagccactcc aggacgtcta 240  
gtggatatga tggaaagagg aaagattgga ttagactttt gcaaatactt ggtgttagat 300  
gaagctgatc ggatgttga tatggggttt gagcctcaga ttcgtagaat agtcgaacaa 360  
gatactatgc ctcaaaggg tgtccgccac actatgatgt ttagtgctac ttttcctaag 420  
gaaatacaga tgctggctcg tgatttctta gatgaatata tcttcttggc tgtaggaaga 480  
gttggtctta cctctgaaa catcacacag aaagtagttt ggggtggaaga atcagacaaa 540  
cggtcatttc tgcttgacct cctaaatgca acaggcaagg attcactgac cttagtgttt 600  
gtggagacca aaaagggtgc agattctctg gaggatttct tataccatga aggatacgca 660  
tgtaccagca tccatggaga ccgttctcag agggatagag aagaggccct tcaccagttc 720  
cgctcaggaa aaagccca 738

<210> 15  
<211> 450  
<212> DNA  
<213> Homo Sapiens Dpy-30 Like Protein

<400> 15  
gaaaatcctc actctgagta cggcttcaca gacaacgttg agagaatagt agaaaatgag 60  
aagattaatg cagaaaagtc atcaaagcag aaggtagatc tccagtcttt gccaaactcg 120  
gcctacctgg atcagacagt tgtgcctatc ttattacagg gacttgctgt gcttgcaaag 180  
gaaagaccac caaatcccat tgaatttcta gcatcttatc ttttaaaaaa caaggcacag 240  
tttgaagatc gaaactgact taatgggaag aacagaaaaa tttagtgtgt actgtagatt 300  
tacatgatta agaggcagct ttaattgcc a tgatcattcc ctctttttgg atgtataaga 360  
accttccgga caacagaccc tatttctgga attgcagaag ataacatatt tcccttattt 420  
tgatttaatc accataaacc atacctattt 450

<210> 16  
<211> 1269  
<212> DNA  
<213> Mus Musculus Vitamin D Receptor

9423.ST25.txt

```

<400> 16
atggaggcaa tggcagccag cacctccctg cctgaccctg gtgactttga ccggaatgtg      60
cctcggatct gtggagtgtg tggagaccga gccacgggct tccacttcaa cgctatgacc      120
tgtgaaggct gcaaggggtt cttcaggcgg agcatgaagc gcaaggccct gttcacctgc      180
cccttcaatg gagattgccg catcaccaag gacaaccggc gacactgcca ggcctgccgg      240
ctcaaacgct gcgtggacat tggcatgatg aaggagttca tcctcacaga tgaggaggtg      300
cagcgtgaagc gagagatgat catgaagagg aaggaggaag aggccttgaa ggacagtctg      360
aggcccaagc tgtctgagga gcaacagcac attatcgcca tcctgctcga tgcccaccac      420
aagacctacg accccaccta tgccgacttc cgggacttcc ggcctccaat tcgtgcagac      480
gtaagtacag ggagctattc tccaaggccc acactcagct tctccggaga ctccctcctca      540
aactctgatc tgtacacccc ctactggac atgatggaac cggccagctt ttccacgatg      600
gatctgaatg aagaaggctc cgatgacccc tctgtgacct tggacctgtc tccgctctcc      660
atgctgcccc acctggctga tcttgctcagt tacagcatcc aaaagggtcat cggctttgcc      720
aagatgatcc ctggcttcag ggacctcacc tctgatgacc agattgtcct gcttaagtca      780
agtgccattg aggtgatcat gttgcgctcc aaccagtctt ttaccttgga tgacatgtcc      840
tgggactgtg gcagccaaga ctacaaatat gacatcactg atgtctccag agctgggcac      900
accctggagc tgatcgaacc cctcataaag ttccagggtg ggctgaagaa gctgaacctc      960
catgaggaag aacatgtgct gctcatggcc atctgcattg tctccccaga ccgacctggg     1020
gtacaggatg ctaagctggt tgaagccatt caggaccgcc tatccaacac actgcagacc     1080
tacatccgct gccgccaccc gccccggggc agccaccagc tctacgcaa gatgatccag     1140
aagctggctg acctgcgaag cctcaatgag gagcactcca aacagtaccg ttccctctcc     1200
ttccagccgg agaacagcat gaagctcaca ccccttggtc tagagggtgt cggcaatgag     1260
atctcctga                                     1269

```

<210> 17  
 <211> 2079  
 <212> PRT  
 <213> Nucleotide sequence of HRT corresponding to the amino acid residue of the C-terminal portion of HR protein

```

<400> 17
Gly Thr Thr Ala Cys Cys Cys Ala Gly Thr Gly Cys Cys Ala Ala Ala
1      5      10      15

Gly Cys Thr Gly Thr Gly Thr Cys Cys Ala Gly Gly Cys Ala Gly Cys
20      25      30

Thr Gly Gly Ala Gly Ala Gly Gly Thr Ala Gly Gly Gly Gly Thr Ala
35      40      45

Cys Thr Gly Ala Cys Cys Gly Gly Cys Cys Ala Cys Thr Cys Cys Cys
50      55      60

```



Ala Gly Ala Ala Ala Thr Cys Ala Cys Gly Thr Ala Gly Gly Thr Cys  
 65 70 75 80  
 Ala Cys Cys Cys Cys Thr Gly Gly Ala Ala Gly Ala Gly Ala Ala Gly  
 85 90 95  
 Cys Ala Gly Thr Thr Gly Gly Ala Gly Gly Ala Gly Gly Ala Gly Gly  
 100 105 110  
 Ala Thr Thr Cys Cys Thr Cys Thr Gly Cys Cys Ala Cys Thr Thr Cys  
 115 120 125  
 Cys Gly Ala Ala Gly Ala Ala Gly Gly Ala Gly Gly Ala Gly Gly Ala  
 130 135 140  
 Gly Gly Gly Cys Cys Thr Gly Gly Cys Cys Cys Ala Gly Ala Ala Gly  
 145 150 155 160  
 Cys Thr Thr Cys Ala Cys Thr Cys Ala Ala Cys Ala Ala Gly Gly Gly  
 165 170 175  
 Cys Cys Thr Gly Gly Cys Cys Ala Ala Gly Cys Ala Cys Cys Thr Gly  
 180 185 190  
 Cys Thr Gly Ala Gly Thr Gly Gly Thr Thr Thr Gly Gly Gly Gly Gly  
 195 200 205  
 Ala Cys Cys Gly Ala Cys Thr Cys Thr Gly Cys Cys Gly Cys Cys Thr  
 210 215 220  
 Gly Cys Thr Gly Cys Gly Gly Ala Ala Gly Gly Ala Gly Cys Gly Gly  
 225 230 235 240  
 Gly Ala Gly Gly Cys Cys Cys Thr Thr Gly Cys Cys Thr Gly Gly Gly  
 245 250 255  
 Cys Ala Cys Ala Gly Cys Gly Ala Gly Ala Ala Gly Gly Cys Cys Ala  
 260 265 270  
 Gly Gly Gly Gly Cys Cys Ala Gly Cys Cys Ala Thr Gly Ala Cys Ala  
 275 280 285  
 Gly Ala Gly Gly Ala Cys Ala Gly Cys Cys Cys Ala Gly Gly Cys Ala  
 290 295 300  
 Thr Thr Cys Cys Ala Cys Ala Thr Thr Gly Cys Thr Gly Cys Ala Gly  
 305 310 315 320  
 Cys Cys Gly Ala Thr Gly Cys Cys Ala Cys Cys Ala Cys Gly Gly Ala  
 325 330 335

Cys Thr Cys Thr Thr Cys Ala Ala Cys Ala Cys Cys Cys Ala Cys Thr  
 340 345 350  
 Gly Gly Ala Gly Ala Thr Gly Thr Thr Cys Cys Cys Ala Cys Thr Gly  
 355 360 365  
 Thr Ala Gly Cys Cys Ala Cys Cys Gly Gly Cys Thr Gly Thr Gly Thr  
 370 375 380  
 Gly Thr Ala Gly Cys Cys Thr Gly Thr Gly Gly Thr Cys Gly Cys Ala  
 385 390 395 400  
 Thr Ala Gly Cys Cys Gly Gly Cys Gly Cys Thr Gly Gly Ala Ala Ala  
 405 410 415  
 Gly Ala Ala Cys Ala Gly Gly Gly Ala Gly Ala Ala Ala Ala Cys Ala  
 420 425 430  
 Gly Gly Thr Thr Cys Thr Cys Ala Gly Gly Ala Ala Cys Ala Gly Cys  
 435 440 445  
 Ala Cys Ala Cys Ala Gly Ala Thr Gly Ala Cys Thr Gly Cys Gly Cys  
 450 455 460  
 Cys Cys Ala Gly Gly Ala Gly Gly Cys Thr Gly Gly Gly Cys Ala Thr  
 465 470 475 480  
 Gly Cys Thr Gly Cys Cys Thr Gly Thr Thr Cys Cys Cys Thr Gly Ala  
 485 490 495  
 Thr Cys Cys Thr Gly Ala Cys Cys Cys Ala Gly Thr Thr Thr Gly Thr  
 500 505 510  
 Cys Thr Cys Cys Ala Gly Cys Cys Ala Gly Gly Cys Gly Cys Thr Gly  
 515 520 525  
 Gly Cys Ala Gly Ala Ala Cys Thr Gly Ala Gly Cys Ala Cys Thr Gly  
 530 535 540  
 Thr Gly Ala Thr Gly Cys Ala Cys Cys Ala Ala Gly Cys Cys Thr Gly  
 545 550 555 560  
 Gly Gly Cys Cys Ala Ala Gly Thr Thr Thr Gly Ala Cys Ala Thr Thr  
 565 570 575  
 Cys Gly Gly Gly Gly Gly Cys Ala Cys Thr Gly Thr Thr Thr Cys Thr  
 580 585 590  
 Gly Cys Cys Ala Gly Gly Thr Thr Gly Ala Thr Gly Cys Cys Cys Gly  
 595 600 605

Thr Gly Thr Gly Thr Gly Gly Gly Cys Cys Cys Cys Cys Gly Gly Gly  
 610 615 620  
 Gly Ala Thr Gly Gly Gly Gly Gly Thr Cys Ala Gly Cys Ala Gly Ala  
 625 630 635 640  
 Ala Gly Gly Ala Ala Cys Cys Ala Ala Cys Ala Gly Ala Gly Ala Ala  
 645 650 655  
 Ala Ala Cys Thr Cys Cys Cys Cys Cys Ala Ala Cys Thr Cys Cys Ala  
 660 665 670  
 Cys Ala Ala Cys Cys Thr Thr Cys Cys Thr Gly Cys Ala Ala Thr Gly  
 675 680 685  
 Gly Ala Gly Ala Thr Thr Cys Cys Ala Ala Thr Cys Gly Gly Ala Cys  
 690 695 700  
 Cys Ala Ala Gly Gly Ala Cys Ala Thr Cys Ala Ala Gly Ala Ala  
 705 710 715 720  
 Gly Ala Gly Ala Cys Cys Cys Cys Ala Gly Ala Cys Thr Cys Cys Ala  
 725 730 735  
 Cys Thr Gly Ala Gly Ala Gly Cys Cys Cys Ala Gly Cys Ala Gly Ala  
 740 745 750  
 Gly Gly Ala Cys Gly Gly Thr Gly Cys Thr Gly Gly Cys Cys Gly Gly  
 755 760 765  
 Thr Cys Ala Cys Cys Cys Cys Thr Thr Cys Cys Thr Thr Gly Thr Cys  
 770 775 780  
 Cys Cys Thr Cys Thr Cys Thr Cys Thr Gly Thr Gly Ala Gly Cys Thr  
 785 790 795 800  
 Gly Cys Thr Ala Gly Cys Cys Thr Cys Thr Ala Cys Thr Gly Cys Thr  
 805 810 815  
 Gly Thr Cys Ala Ala Ala Cys Thr Cys Thr Gly Cys Cys Thr Gly Gly  
 820 825 830  
 Gly Gly Cys Ala Thr Gly Ala Cys Cys Gly Gly Ala Thr Thr Cys Ala  
 835 840 845  
 Cys Ala Thr Gly Gly Cys Cys Thr Thr Thr Gly Cys Thr Cys Cys Gly  
 850 855 860  
 Gly Thr Cys Ala Cys Cys Cys Cys Ala Gly Cys Thr Cys Thr Gly Cys  
 865 870 875 880

Cys Cys Ala Gly Thr Gly Ala Thr Gly Ala Cys Cys Gly Cys Ala Thr  
 885 890 895  
 Thr Ala Cys Cys Ala Ala Cys Ala Thr Cys Cys Thr Gly Gly Ala Cys  
 900 905 910  
 Ala Gly Cys Ala Thr Thr Ala Thr Thr Gly Cys Gly Cys Ala Gly Gly  
 915 920 925  
 Thr Ala Gly Thr Ala Gly Ala Ala Cys Gly Gly Ala Ala Gly Ala Thr  
 930 935 940  
 Cys Cys Ala Ala Gly Ala Gly Ala Ala Ala Gly Cys Cys Cys Thr Gly  
 945 950 955 960  
 Gly Gly Gly Cys Cys Ala Gly Gly Cys Cys Thr Gly Cys Gly Ala Gly  
 965 970 975  
 Cys Ala Gly Gly Gly Thr Cys Ala Gly Gly Cys Thr Thr Ala Cys Gly  
 980 985 990  
 Cys Ala Ala Gly Gly Gly Cys Cys Thr Gly Ala Gly Cys Cys Thr Thr  
 995 1000 1005  
 Cys Cys Ala Thr Thr Gly Thr Cys Ala Cys Cys Ala Gly Thr Gly  
 1010 1015 1020  
 Cys Gly Ala Ala Cys Cys Cys Gly Gly Cys Thr Gly Thr Cys Thr  
 1025 1030 1035  
 Cys Cys Thr Cys Cys Thr Gly Gly Ala Gly Cys Thr Thr Thr Gly  
 1040 1045 1050  
 Cys Thr Gly Thr Gly Gly Cys Thr Gly Cys Ala Gly Gly Ala Gly  
 1055 1060 1065  
 Cys Cys Thr Ala Gly Gly Cys Cys Thr Ala Ala Gly Cys Ala Thr  
 1070 1075 1080  
 Gly Gly Cys Thr Thr Cys Cys Ala Thr Cys Thr Cys Thr Thr Cys  
 1085 1090 1095  
 Cys Ala Gly Gly Ala Ala Cys Ala Cys Thr Gly Gly Cys Gly Gly  
 1100 1105 1110  
 Cys Ala Gly Gly Gly Cys Cys Ala Gly Cys Cys Cys Gly Thr Gly  
 1115 1120 1125  
 Thr Thr Ala Gly Thr Gly Thr Cys Ala Gly Gly Cys Ala Thr Cys  
 1130 1135 1140

Cys Ala Gly Ala Ala Gly Ala Cys Ala Thr Thr Gly Ala Gly Ala  
 1145 1150 1155  
 Cys Thr Thr Ala Gly Cys Cys Thr Gly Thr Gly Gly Gly Gly Ala  
 1160 1165 1170  
 Ala Thr Gly Gly Ala Ala Gly Cys Cys Cys Thr Thr Gly Gly Gly  
 1175 1180 1185  
 Ala Cys Ala Cys Thr Thr Gly Gly Thr Gly Gly Cys Cys Ala Gly  
 1190 1195 1200  
 Gly Thr Gly Cys Ala Gly Thr Cys Ala Cys Thr Gly Ala Cys Thr  
 1205 1210 1215  
 Gly Cys Cys Cys Thr Thr Gly Gly Gly Cys Cys Thr Cys Cys Cys  
 1220 1225 1230  
 Cys Ala Gly Cys Cys Cys Ala Cys Gly Ala Ala Cys Cys Thr Gly  
 1235 1240 1245  
 Gly Ala Cys Ala Gly Cys Ala Cys Ala Gly Cys Ala Thr Thr Cys  
 1250 1255 1260  
 Thr Gly Gly Gly Ala Gly Gly Gly Ala Thr Thr Cys Thr Cys Thr  
 1265 1270 1275  
 Cys Ala Thr Cys Cys Thr Gly Ala Gly Ala Cys Ala Cys Gly Thr  
 1280 1285 1290  
 Cys Cys Ala Ala Ala Gly Thr Thr Ala Gly Ala Thr Gly Ala Gly  
 1295 1300 1305  
 Gly Gly Cys Thr Cys Thr Gly Thr Cys Cys Thr Cys Cys Thr Gly  
 1310 1315 1320  
 Cys Thr Ala Cys Ala Cys Cys Gly Ala Ala Cys Cys Cys Thr Gly  
 1325 1330 1335  
 Gly Gly Gly Gly Ala Thr Ala Ala Gly Gly Ala Cys Gly Cys Thr  
 1340 1345 1350  
 Ala Gly Cys Ala Gly Gly Gly Thr Gly Cys Ala Gly Ala Ala Cys  
 1355 1360 1365  
 Cys Thr Thr Gly Thr Cys Thr Cys Cys Ala Gly Cys Cys Thr Thr  
 1370 1375 1380  
 Cys Cys Ala Cys Thr Cys Cys Cys Ala Gly Ala Ala Thr Ala Cys  
 1385 1390 1395

Thr Gly Thr Gly Cys Cys Cys Ala Cys Cys Ala Ala Gly Gly Gly  
 1400 1405 1410  
 Ala Ala Ala Cys Thr Cys Ala Ala Cys Cys Thr Ala Gly Cys Gly  
 1415 1420 1425  
 Thr Cys Cys Thr Ala Cys Cys Thr Cys Cys Cys Cys Cys Thr Gly  
 1430 1435 1440  
 Gly Gly Cys Cys Thr Cys Ala Cys Ala Cys Thr Gly Cys Ala Thr  
 1445 1450 1455  
 Cys Cys Ala Cys Thr Gly Gly Ala Gly Cys Cys Cys Cys Ala Gly  
 1460 1465 1470  
 Cys Thr Cys Thr Gly Gly Gly Cys Gly Gly Cys Cys Thr Ala Thr  
 1475 1480 1485  
 Gly Gly Thr Gly Thr Gly Ala Ala Cys Thr Cys Ala Cys Ala Cys  
 1490 1495 1500  
 Cys Gly Thr Gly Gly Ala Cys Ala Cys Cys Thr Gly Gly Gly Gly  
 1505 1510 1515  
 Ala Cys Cys Ala Ala Gly Ala Ala Thr Cys Thr Ala Thr Gly Cys  
 1520 1525 1530  
 Gly Thr Gly Gly Ala Gly Gly Thr Gly Thr Cys Thr Gly Ala Cys  
 1535 1540 1545  
 Cys Thr Ala Ala Thr Cys Ala Gly Thr Ala Thr Cys Cys Thr Gly  
 1550 1555 1560  
 Gly Thr Gly Cys Ala Cys Gly Cys Cys Gly Ala Gly Gly Cys Cys  
 1565 1570 1575  
 Cys Ala Gly Cys Thr Gly Cys Cys Thr Cys Cys Cys Thr Gly Gly  
 1580 1585 1590  
 Thr Ala Thr Cys Gly Ala Gly Cys Ala Cys Ala Gly Ala Ala Ala  
 1595 1600 1605  
 Gly Ala Thr Thr Thr Cys Cys Thr Cys Thr Cys Ala Gly Gly Cys  
 1610 1615 1620  
 Cys Thr Gly Gly Ala Thr Gly Gly Gly Gly Ala Ala Gly Gly Ala  
 1625 1630 1635  
 Cys Thr Cys Thr Gly Gly Thr Cys Thr Cys Cys Ala Gly Gly Gly  
 1640 1645 1650

Ala Gly Cys Cys Ala Gly Ala Cys Cys Ala Gly Cys Ala Cys Thr  
 1655 1660 1665  
 Gly Thr Gly Thr Gly Gly Cys Ala Thr Gly Thr Gly Thr Thr Cys  
 1670 1675 1680  
 Cys Gly Gly Gly Cys Cys Cys Ala Gly Gly Ala Thr Gly Cys Cys  
 1685 1690 1695  
 Cys Ala Gly Cys Gly Cys Ala Thr Cys Cys Gly Thr Cys Gly Cys  
 1700 1705 1710  
 Thr Thr Thr Cys Thr Cys Cys Ala Gly Ala Thr Gly Gly Thr Gly  
 1715 1720 1725  
 Thr Gly Cys Cys Cys Ala Gly Cys Thr Gly Gly Ala Gly Cys Ala  
 1730 1735 1740  
 Gly Gly Ala Ala Cys Cys Thr Thr Gly Gly Ala Gly Cys Cys Thr  
 1745 1750 1755  
 Gly Gly Thr Gly Cys Cys Cys Cys Ala Gly Gly Cys Ala Gly Cys  
 1760 1765 1770  
 Thr Gly Cys Thr Ala Cys Thr Thr Gly Gly Ala Thr Gly Cys Ala  
 1775 1780 1785  
 Gly Gly Gly Thr Thr Gly Cys Gly Cys Cys Gly Ala Cys Gly Gly  
 1790 1795 1800  
 Cys Thr Ala Ala Gly Ala Gly Ala Ala Gly Ala Gly Thr Gly Gly  
 1805 1810 1815  
 Gly Gly Thr Gly Thr Gly Ala Gly Cys Thr Gly Cys Thr Gly Gly  
 1820 1825 1830  
 Ala Cys Cys Cys Thr Gly Cys Thr Gly Cys Ala Gly Gly Cys Thr  
 1835 1840 1845  
 Cys Cys Thr Gly Gly Gly Gly Ala Ala Gly Cys Gly Gly Thr Gly  
 1850 1855 1860  
 Cys Thr Gly Gly Thr Cys Cys Cys Gly Gly Cys Thr Gly Gly Gly  
 1865 1870 1875  
 Gly Cys Gly Cys Cys Cys Ala Thr Cys Ala Gly Gly Thr Gly  
 1880 1885 1890  
 Cys Ala Gly Gly Gly Cys Cys Thr Gly Gly Thr Gly Ala Gly Cys  
 1895 1900 1905

9423.ST25.txt

Ala Cys 1910 Ala Ala Thr Cys Ala 1915 Gly Thr Gly Thr Cys 1920 Ala Cys Thr  
 Cys Ala 1925 Gly Cys Ala Cys Thr 1930 Thr Thr Cys Thr Gly 1935 Thr Cys Thr  
 Cys Cys 1940 Thr Gly Ala Gly Ala 1945 Cys Cys Thr Cys Thr 1950 Gly Cys Cys  
 Cys Thr 1955 Cys Thr Cys Thr Gly 1960 Cys Thr Cys Ala Gly 1965 Cys Thr Cys  
 Thr Gly 1970 Cys Cys Ala Cys Cys 1975 Ala Gly Gly Gly Ala 1980 Gly Cys Cys  
 Ala Gly 1985 Cys Cys Thr Ala Cys 1990 Cys Cys Cys Cys Thr 1995 Gly Ala Cys  
 Cys Ala 2000 Cys Cys Gly Thr Ala 2005 Thr Gly Cys Thr Thr 2010 Thr Ala Thr  
 Gly Cys 2015 Cys Cys Ala Gly Ala 2020 Thr Gly Gly Ala Cys 2025 Cys Gly Gly  
 Gly Cys 2030 Thr Gly Thr Gly Thr 2035 Thr Cys Cys Ala Ala 2040 Gly Cys Ala  
 Gly Thr 2045 Ala Ala Ala Gly Gly 2050 Cys Gly Gly Cys Thr 2055 Gly Thr Gly  
 Gly Gly 2060 Gly Gly Cys Gly Thr 2065 Thr Ala Cys Ala Gly 2070 Gly Ala Ala  
 Gly Cys 2075 Thr Ala Ala Ala

<210> 18  
 <211> 2079  
 <212> DNA  
 <213> C-terminal portion of hairless protein of mouse (Hrt) having amino acid  
 residues 490 to 1182

<400> 18  
 gttacccagt gccaaagctg tgtccaggca gctggagagg taggggtact gaccggccac 60  
 tcccagaaat cacgtaggtc acccctggaa gagaagcagt tggaggagga ggattcctct 120  
 gccacttccg aagaaggagg aggagggcct ggcccagaag cttcactcaa caagggcctg 180  
 gccaaagcacc tgctgagtgg tttgggggac cgactctgcc gcctgctgcg gaaggagcgg 240  
 gaggcccttg cctgggcaca gcgagaaggc caggggccag ccatgacaga ggacagccca 300  
 ggcattccac attgctgcag ccgatgccac cacggactct tcaacacca ctggagatgt 360



## 9423.ST25.txt

```

tcccactgta gccaccggct gtgtgtagcc tgtggtcgca tagccggcgc tggaaagaac 420
agggagaaaa caggttctca ggaacagcac acagatgact gcgcccagga ggctgggcat 480
gctgcctggt ccctgatcct gaccagttt gtctccagcc aggcgctggc agaactgagc 540
actgtgatgc accaagcctg ggccaagttt gacattcggg ggactgttt ctgccagggt 600
gatgcccgtg tgtgggcccc cggggatggg ggtcagcaga aggaaccaac agagaaaact 660
cccccaactc cacaacctc ctgcaatgga gattccaatc ggaccaagga catcaaagaa 720
gagaccccag actccactga gagcccagca gaggacggtg ctggccggtc accccttcct 780
tgtccctctc tctgtgagct gctagcctct actgtgtgca aactctgcct ggggcatgac 840
cggattcaca tggcctttgc tccggtcacc ccagctctgc ccagtgatga ccgcattacc 900
aacatcctgg acagcattat tgcgcaggta gtagaacgga agatccaaga gaaagccctg 960
gggccaggcc tgcgagcagg gtcaggctta cgcaagggcc tgagccttcc attgtcacca 1020
gtgcgaaccc ggctgtctcc tcctggagct ttgctgtggc tgcaggagcc taggcctaag 1080
catggcttcc atctcttcca ggaacactgg cggcagggcc agcccgtgtt agtgtcaggc 1140
atccagaaga cattgagact tagcctgtgg ggaatggaag cccttgggac acttgggtggc 1200
cagggtgcagt cactgactgc ccttgggcct cccagccca cgaacctgga cagcacagca 1260
ttctgggagg gattctctca tcctgagaca cgtccaaagt tagatgaggg ctctgtcctc 1320
ctgctacacc gaaccctggg ggataaggac gctagcaggg tgcagaacct tgtctccagc 1380
cttccactcc cagaatactg tgcccaccaa gggaaactca acctagcgtc ctacctcccc 1440
ctgggcctca cactgcatcc actggagccc cagctctggg cggcctatgg tgtgaactca 1500
caccgtggac acctggggac caagaatcta tgcgtggagg tgtctgacct aatcagtatc 1560
ctggtgcacg ccgaggccca gctgcctccc tggatatcag cacagaaaga tttcctctca 1620
ggcctggatg gggaaggact ctggtctcca gggagccaga ccagcactgt gtggcatgtg 1680
ttccgggccc aggatgccca gcgcattcgt cgctttctcc agatgggtgtg cccagctgga 1740
gcaggaacct tggagcctgg tgccccaggc agctgctact tggatgcagg gttgcgccga 1800
cggctaagag aagagtgggg tgtgagctgc tggacctgc tgcaggctcc tggggaagcg 1860
gtgctggtcc cggctggggc gccccatcag gtgcagggcc tggtagcac aatcagtgtc 1920
actcagcact ttctgtctcc tgagacctct gccctctctg ctcagctctg ccaccaggga 1980
gccagcctac cccctgacca ccgtatgctt tatgcccaga tggaccgggc tgtgttccaa 2040
gcagtaaagg cggctgtggg ggcgttacag gaagctaaa 2079

```

```

<210> 19
<211> 30
<212> DNA
<213> Oligonucleotide primer

```

```

<400> 19
ccggaattcg tcaccagtg ccaaagctgt

```

30

9423.ST25.txt

<210> 20  
<211> 49  
<212> DNA  
<213> Oligonucleotide primer  
  
<400> 20  
cgggatcctc tagagcggcc gcttattatt tagcttcctg taacgcccc

49